WHAT IS CLAIMED IS:

1. An isolated antibody that specifically binds the Apoptosis Inducing Molecule (AIM-I) protein of SEQ ID NO:2.

2. The antibody according to claim 1, which is a monoclonal antibody.

3. The antibody of claim 1, wherein the antibody is an antagonist of the protein of SEQ ID NO:2.

4. The antibody of claim 1, which antibody blocks binding of AIM-I to a target cell.

5. The antibody of claim 4, which is a monoclonal antibody.

6. An antigen-binding fragment of the antibody of claim 1.

7. An antigen-binding fragment of the monoclonal antibody of claim 5.

8. A hybridoma cell line that produces the monoclonal antibody of claim 2.

9. A composition comprising the antibody of claim 1, and a pharmaceutically acceptable carrier.

10. A composition comprising the monoclonal antibody of claim 2, and a pharmaceutically acceptable carrier.

11. The antibody of claim 3, which is an monoclonal antibody.

12. An antigen-binding fragment of the monoclonal antibody of claim 11.

13. An isolated antibody that specifically binds an Apoptosis Inducing Molecule (AIM-I) polypeptide, wherein said polypeptide comprises amino acids 39 to 281 of SEQ ID NO:2.

14. The antibody of claim 13, which is a monoclonal antibody.

15. The antibody of claim 13, wherein the antibody is an antagonist of AIM-I.

16. The monoclonal antibody of claim 14, which blocks binding of AIM-I to a target cell.

17. An antigen-binding fragment of the monoclonal antibody of claim 14.

18. A hybridoma cell line that produces the monoclonal antibody of claim 14.

19. The antibody of claim 15, which is a monoclonal antibody.

20. The antibody of claim 1, which is selected from the group consisting of:
    (a) a polyclonal antibody;
    (b) a chimeric antibody;
    (c) a humanized antibody; and
    (d) a human antibody.

21. The antibody of claim 13, which is selected from the group consisting of:
    (a) a polyclonal antibody;
    (b) a chimeric antibody;
    (c) a humanized antibody; and
    (d) a human antibody.

22. An isolated antibody that specifically binds the polypeptide encoded by the human cDNA contained in ATCC Deposit No. 97448.

23. The antibody of claim 22, which is a monoclonal antibody.

24. The antibody of claim 22, which is selected from the group consisting of:

(a) a polyclonal antibody;

(b) a chimeric antibody;

(c) a humanized antibody; and

(d) a human antibody.

25. The antibody of claim 22, which is an antagonist of the polypeptide encoded by the human cDNA contained in ATCC Deposit No. 97448.

26. An isolated antibody fragment, which fragment specifically binds the polypeptide of SEQ ID NO:2 or the polypeptide encoded by the human cDNA contained in ATCC Deposit No. 97448.

27. The antibody fragment of claim 26, which fragment is selected from the group consisting of:

(a) a humanized antibody fragment;

(b) a monoclonal antibody fragment;

(c) a polyclonal antibody fragment;

(d) a human antibody fragment; and

(e) a Fab fragment.

28. The antibody fragment of claim 26, which fragment is an antagonist of the polypeptide of SEQ ID NO:2 or the polypeptide encoded by the human cDNA contained in ATCC Deposit No. 97448.

29. An isolated antibody specific to a polypeptide purified from a cell culture, wherein cells in said cell culture comprise a polynucleotide encoding the polypeptide of SEQ ID NO:2 or the polypeptide encoded by the human cDNA contained in ATCC Deposit No. 97448, said polynucleotide being operably associated with a regulatory sequence that controls gene expression.

30. The antibody of claim 29, which is selected from the group consisting of:

(a) a monoclonal antibody;

(b) a polyclonal antibody;

(c) a chimeric antibody;

(d) a humanized antibody; and

(e) a human antibody.

31. The antibody of claim 29, which is an antagonist of the polypeptide of SEQ ID NO:2 or the polypeptide encoded by the human cDNA contained in ATCC Deposit No. 97448.

32. An isolated antibody fragment, which fragment specifically binds a polypeptide purified from a cell culture, wherein cells in said cell culture comprise a polynucleotide encoding the polypeptide of SEQ ID NO:2 or the polypeptide encoded by the human cDNA contained in ATCC Deposit No. 97448, said polynucleotide being operably associated with a heterologous regulatory sequence that controls gene expression.

33. The antibody fragment of claim 32, which fragment is selected from the group consisting of:

(a) a monoclonal antibody fragment;

(b) a polyclonal antibody fragment;

(c) a chimeric antibody fragment;

(d) a humanized antibody fragment; and

(e) a human antibody fragment.

34. The antibody fragment of claim 32, which fragment is an antagonist of the polypeptide of SEQ ID NO:2 or the polypeptide encoded by the human cDNA contained in ATCC Deposit No. 97448.

35. An isolated antibody obtained from an animal immunized with an isolated recombinant AIM-I polypeptide purified from a cell culture, wherein cells in said cell culture comprise a polynucleotide encoding the polypeptide of SEQ ID NO:2 or the polypeptide encoded by the human cDNA contained in ATCC Deposit No. 97448, said polynucleotide

being operably associated with a regulatory sequence that controls gene expression, wherein said antibody specifically binds the polypeptide of SEQ ID NO:2 or the polypeptide encoded by the human cDNA contained in ATCC Deposit No. 97448.

36. The antibody of claim 35, which is selected from the group consisting of:

(a) a monoclonal antibody fragment;

(b) a polyclonal antibody fragment;

(c) a chimeric antibody fragment;

(d) a humanized antibody fragment; and

(e) a human antibody fragment.

37. The antibody of claim 35, which is an antagonist of the polypeptide of SEQ ID NO:2 or the polypeptide encoded by the human cDNA contained in ATCC Deposit No. 97448.

38. An isolated antibody fragment obtained from an animal immunized with an isolated recombinant AIM-I polypeptide purified from a cell culture, wherein cells in said cell culture comprise a polynucleotide encoding the polypeptide of SEQ ID NO:2 or the polypeptide encoded by the human cDNA contained in ATCC Deposit No. 97448, said polynucleotide being operably associated with a regulatory sequence that controls gene expression, wherein said antibody fragment specifically binds the polypeptide of SEQ ID NO:2 or the polypeptide encoded by the human cDNA contained in ATCC Deposit No. 97448.

39. The antibody fragment of claim 38, which fragment is selected from the group consisting of:

(a) a monoclonal antibody fragment;

(b) a polyclonal antibody fragment;

(c) a chimeric antibody fragment;

(d) a humanized antibody fragment; and

(e) a human antibody fragment.

40. The antibody fragment of claim 38, which fragment is an antagonist of the polypeptide of SEQ ID NO:2 or the polypeptide encoded by the human cDNA contained in ATCC Deposit No. 97448.

41. A kit comprising in one or more containers a molecule selected from the group consisting of an anti-AIM-I antibody, a nucleic acid probe capable of hybridizing to AIM-I RNA, or a pair of nucleic acid primers capable of priming amplification of at least a portion of an AIM-I nucleic acid.